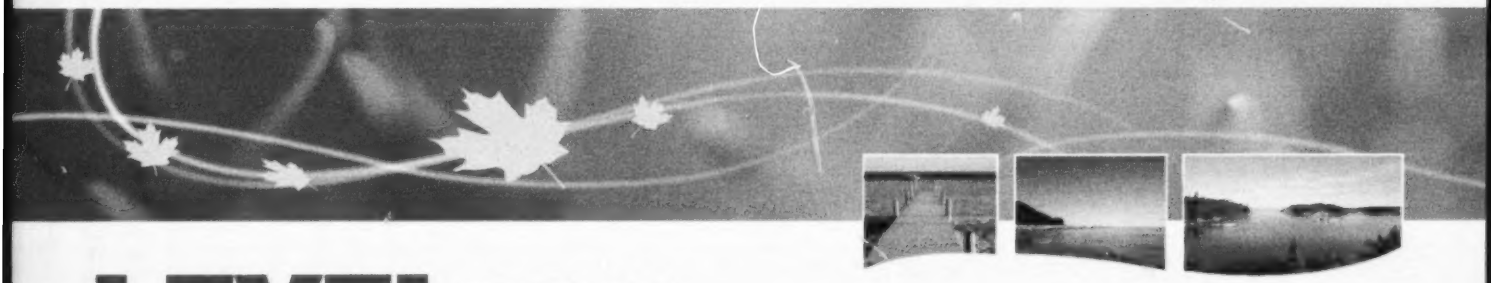
Environment and Climate Change Canada | Environnement et Changement climatique Canada

Volume 25, Number 9
September 2017



LEVELnews

Great Lakes — St. Lawrence River Water Levels

Wet conditions continue for most lakes in August

Continuing the generally wet trend seen through the summer, all of the Great Lakes, with the exception of Lake Michigan–Huron, saw wet conditions for August. Levels on all of the Great Levels on all of the Great Lakes remained well above average for this time due to the wet conditions. The lower St. Lawrence River also remained well above average due mainly to record high outflow from Lake Ontario while Lake St. Lawrence was below average due to the high outflow from Lake Ontario.

August monthly lake levels

All of the lakes had monthly mean levels above average in August. The August monthly mean water level of Lake Superior was 25 cm above its period-of-record (1918–2016) average and 8 cm higher than August 2016, making it the highest August mean level seen since 1996. Lake Michigan–Huron's mean level in July was 45 cm above average, 18 cm higher than last August's level and the highest since 1997. Lake Erie's mean monthly level was 44 cm above average, 24 cm above its level the previous August and the highest it has been since 1997. Lake Ontario's mean monthly August level of 75.43 m was 15 cm lower than the previous record high set in August 1947 but 55 cm above its average and 59 cm higher than the level last year. The last time Lake Ontario's monthly level was this high was 1952.

Lake level changes

Lake Superior rose 4 cm through August due to relatively wet conditions for this time of year, well above its average

Great Lakes Water Level Information

Lake	August 2017 Monthly Mean Level		Beginning-of-September 2017 Level	
	Compared to Monthly Average (1918–2016)	Compared to One Year Ago	Compared to Beginning-of-Month Average (1918–2016)	Compared to One Year Ago
Superior	25 cm above	8 cm above	25 cm above	9 cm above
Michigan–Huron	45 cm above	18 cm above	44 cm above	16 cm above
St. Clair	51 cm above	20 cm above	58 cm above	20 cm above
Erie	44 cm above	24 cm above	48 cm above	24 cm above
Ontario	55 cm above	59 cm above	41 cm above	43 cm above

Canada

(1918–2016) August rise of 1 cm. Lake Michigan–Huron experienced drier conditions for August resulting in its level falling the average amount of 4 cm. A combination of relatively wet conditions for the month and above-average outflow resulted in Lake Erie falling 7 cm over August, which is slightly less than the average fall of 8 cm. Despite the well above-average water supplies for August, Lake Ontario levels continued their rapid fall which began towards the end of May, due mainly to the record high outflow from the lake. Lake Ontario levels fell 35 cm over the month due to the record-maximum outlfows and despite relatively high water supplies to the lake. This August's decline was 3 cm more than the record set in 2002 and well above the average August decline of 14 cm.

Beginning-of-September lake levels

All the lakes had beginning-of-September levels well above those seen in the last 20 years. Lake Superior's beginning-of-September level was 25 cm above average (1918–2016), 9 cm above the level at this time last year, and the highest they have been since 1986. Lake Michigan–Huron's beginning-of-September level was 44 cm above average, 16 cm higher than last year and the highest it has been since 1997. Lake Erie was 48 cm above average at the beginning of September, 24 cm above this time last year and the highest it has been since 1997. Lake Ontario's level at the start of September was 41 cm above average, 43 cm above this time last year and the highest it has been since 1952. At the beginning of September, all of the lakes were at least 59 cm above their chart datum level.

Water levels forecast

Relative to their beginning-of-September levels and assuming average water supply conditions all the Great Lake levels are expected to decline through September. For a graphical representation of recent and forecasted water levels on the Great Lakes, refer to the Canadian Hydrographic Service's monthly water levels bulletin at: http://tides-marees.gc.ca/C&A/bulletin-eng.html.

FOR MORE INFORMATION:

Derrick Beach (Editor)
Boundary Water Issues
National Hydrological Services
Meteorological Service Canada
Environment and Climate Change Canada
Burlington ON L7S 1A1
Tel.: 905-336-4714
Email:
ec.levelnews-infoniveau.ec@canada.ca

Rob Caldwell
Great Lakes–St. Lawrence Regulation Office
Meteorological Service Canada
Environment and Climate Change Canada
111 Water Street East
Cornwall ON K6H 6S2
Tel.: 613-938-5864

For information regarding reproduction rights, please contact Environment and Climate Change Canada's Public Inquiries Centre at 1-800-668-6767 (in Canada only) or 819-997-2800 or email to ec.enviroinfo.ec@canada.ca.

Photos: © Environment Canada – 2011

© Her Majesty the Queen in Right of Canada, represented by the Minister of Environment and Climate Change, 2017

ISSN 1925-5713

Aussi disponible en français

August Precipitation over the Great Lakes*

Great Lakes Basin	**105%**	**Lake Erie**	**72%**
Lake Superior	**121%**	**(including Lake St. Clair)**	
Lake Michigan–Huron	**110%**	**Lake Ontario**	**87%**

August Outflows from the Great Lakes*

Lake Superior	**138%**	**Lake Erie**	**116%**
Lake Michigan–Huron	**111%**	**Lake Ontario**	**137%**

***As a percentage of the long-term August average.**
NOTE: These figures are preliminary.